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# **City of Fresno**

# **Water Division**

  

## **2003**

# **Lead & Copper**

# **Test Results**

**CITY OF FRESNO WATER DIVISION LEAD AND COPPER RULE  
COMPLIANCE MONITORING RESULTS OF SUMMER 2003 MONITORING**

**INTRODUCTION**

The United States Environmental Protection Agency (USEPA) promulgated National Primary Drinking Water Regulations for lead and copper monitoring on June 7, 1991, (56 FR26460), commonly referred to as the Lead and Copper Rule. This Rule requires that the City of Fresno monitor the water distribution system from the source to the point of delivery at the consumer's tap. Three specific monitoring protocols are included in the Lead and Copper Rule regulations:

- 1) First draw tap water monitoring for lead and copper
- 2) distribution system monitoring for various water quality parameters, and
- 3) source water monitoring for lead, copper, and various water quality parameters.

For the purposes of the Lead and Copper Rule monitoring requirements, the City of Fresno is classified as a large public water supplier. This classification is based upon the City's 115,000 service connections which supply potable water to some 498,500 customers.

**SAMPLE SITE SELECTION**

The City of Fresno utilized the same Tier 1-C sample pool of 131 original residences which were selected for the initial two years of testing. Two rounds of sampling and analysis for lead and copper were required for 1993 whereas only one round was required for 1994. Eighteen of the residences were not sampled for 1994; two residents had installed water filtration/softening

devices, seven residents could not be contacted, and nine chose not to participate in this sampling. One resident had moved into an adjacent dwelling which met all the criteria for a sample site and was thus added to the sample pool. Samples were thus collected for 114 sites in the sample 1994 pool.

Per the direction of the State of California Department of Health Services, Office of Drinking Water (who presently govern the Lead and Copper Rule) the 1996, 1999, and 2003 sampling were reduced to fifty (50) representative sites from within the original sample pool of residences. Sites were randomly selected from each tract in an attempt to maintain equal sample percentages in accordance with previous sampling. Unfortunately not all sites selected for the 2003 sampling chose to participate. The final tract percentages are outlined below.

TRACT	ENTIRE POOL %	1996 SAMPLE %	1999 SAMPLE %	2003 %
A	03%	08%	06%	06%
B	34%	30%	32%	30%
C	31%	30%	24%	30%
D	18%	18%	18%	16%
E	12%	14%	18%	16%
F	02%	00%	02%	02%
TOTAL	100%	100%	100%	100%

Exhibit 1 presents the completed Sample Site Justification/Collection Method Certification Form from the Lead and Copper Rule Guidance Manual. The residents performing the tap water

sampling are listed in Table 1. Water quality sampling was performed at eighteen source locations and fifteen distribution system locations. These water quality sample locations are in the same areas as the tap water sample sites and represent the sources and distribution system for all the tap water sample sites in the 2003 Tier 1-C sample pool. The locations of the water quality sample sites are listed in Table 2.

### **SAMPLE COLLECTION**

The City of Fresno collected their 2003 samples in compliance with the Lead and Copper Rule during the period June 18 - August 5, 2003 (90% collected by June 27th). Residents collecting tap water samples were given written instructions (Exhibit 2) along with their sample bottle.

### **TAP WATER SAMPLE RESULTS**

Table 3 presents the results of the tap water analysis for lead and copper. The table lists the lead and copper concentrations in descending order. This was done in order to determine the 90th percentile levels as required by the Lead and Copper Rule.

#### **Lead Results**

The 90th percentile lead level was determined by multiplying the number of samples taken by 0.9 ( $50 \times 0.9 = 45$ ). The 90th percentile lead level for the City of Fresno samples is 0.0025 mg/L, which is below the EPA action level of 0.015 mg/L. The laboratory analysis detection limit for lead is the following: values less than 0.001 mg/L are reported as 0 (zero); values between 0.0010 and 0.0049 are reported as 0.0025 mg/L; values greater than 0.005 mg/L are reported directly.

## **Copper Results**

The 90th percentile copper level was determined in the same way as for lead. The 90th percentile copper level for the City of Fresno is 0.25 mg/L which is below the EPA action level of 1.3 mg/L. The laboratory analysis detection limit for copper is the following: values less than 0.01 mg/L are reported as 0 (zero); values between 0.010 and 0.049 mg/L are reported as 0.025 mg/L; values greater than 0.05 mg/L are reported directly.

## **DISTRIBUTION SYSTEM AND SOURCE SAMPLE RESULTS**

Water quality analysis was performed on fifteen distribution system locations and twenty points of entry to the distribution system. These results are summarized in Table 2.

Both the lead and copper concentrations of the source water and distribution system at these sample locations are significantly below the EPA/DHS action level. The laboratory analysis detection limit for both lead and copper have both been previously explained.

## **FUTURE LEAD AND COPPER MONITORING**

Upon completion of this fifth year of sampling for the Lead and Copper Rule, the City of Fresno's water distribution system continues to be significantly below the EPA/DHS action level. Accordingly, it is interpreted that the next round of testing be resumed in the summer of 2006, to monitor lead and copper for the EPA/DHS.

h:\prd\leadcopr\03result

TABLE 1

TAP WATER SAMPLE ANALYSIS 2003

TABLE 2

WATER QUALITY PARAMETER SAMPLE LOCATIONS AND RESULTS

TABLE 2

## WATER QUALITY PARAMETER SAMPLE LOCATIONS AND RESULTS

Type	System ID #	Location	Lead mg/l	Copper mg/l
Source	W-6B	(b) (6)	ND	ND
Source	W-79	(b) (9)	ND	ND
Source	W-83A		ND	ND
Source	W-86		ND	ND
Source	W-89		ND	ND
Source	W-91		ND	ND
Source	W-97		ND	ND
Source	W-99		ND	ND
Source	W-131		ND	ND
Source	W-133		ND	ND
Source	W-136		ND	ND
Source	W-141		ND	ND
Source	W-143		ND	ND
Source	W-150		ND	ND
Source	W-163		ND	ND
Source	W-169		ND	ND
Source	W-171-1		ND	ND
Source	W-178		ND	ND
Source	W-181		ND	ND



TABLE 2

## WATER QUALITY PARAMETER SAMPLE LOCATIONS AND RESULTS

Type	System ID #	Location	Lead mg/l	Copper mg/l
Dist	W2D54	(b) (6)	0.0025	ND
Dist	W2A11		0.0025	0.15
Dist	W2A13		ND	ND
Dist	W2C43		0.0025	0.060
Dist	W5D52		0.0025	0.025
Dist	W5D58		0.0025	ND
Dist	E7D91		0.0080	ND
Dist	E4A22		0.037	0.025
Dist	E4B45		0.010	0.14
Dist	E3A19		0.010	0.025
Dist	E4C47		0.0090	0.025
Dist	E3B44		0.019	ND
Dist	E3D93		0.0060	0.025
Dist	E7A14		0.010	0.025
Dist	E8D48		0.016	0.060

SAMPLE SITE IDENTIFICATION AND CERTIFICATION  
STATE FORM 141-R LEAD AND COPPER MONITORING SUMMARY  
CHANGE OF SAMPLING SITES

Type	System ID #	Location	Justification
Source	W-83A	(b) (6)	Proximity to area served
Source	W-150	(b) (9)	Proximity to area served
Source	W-163		Proximity to area served
Source	W-171-1		Proximity to area served
Dist	W2A13		Proximity to area served
Dist	W5D58		Proximity to area served
Dist	E4A22		Proximity to area served
Dist	E7A14		Proximity to area served
Dist	E8D48		Proximity to area served

TABLE 3

TAP WATER SAMPLE ANALYSIS SUMMER 2003

TABLE 3

## TAP WATER SAMPLE ANALYSIS (LEAD)–SUMMER 2003

#	Rank	mg/l	#	Rank	mg/l	#	Rank	mg/l
120	50	0.005	10	32	0	115	14	0
140	49	0.0025	01	31	0	88	13	0
124	48	0.0025	03	30	0	158	12	0
111	47	0.0025	02	29	0	131	11	0
156	46	0.0025	165	28	0	21	10	0
130	45	0.0025	87	27	0	107	9	0
61	44	0	52	26	0	157	8	0
168	43	0	40	25	0	139	7	0
134	42	0	86	24	0	142	6	0
159	41	0	98	23	0	143	5	0
148	40	0	57	22	0	136	4	0
147	39	0	36	21	0	79	3	0
129	38	0	105	20	0	20	2	0
42	37	0	58	19	0	71	1	0
164	36	0	39	18	0			
83	35	0	84	17	0			
51	34	0	76	16	0			
67	33	0	43	15	0			

TABLE 3

## TAP WATER SAMPLE ANALYSIS (COPPER)–SUMMER 2003

#	Rank	mg/l	#	Rank	mg/l	#	Rank	mg/l
140	50	0.33	21	32	0.19	61	14	0.090
51	49	0.31	147	31	0.18	157	13	0.090
159	48	0.27	107	30	0.17	57	12	0.080
129	47	0.26	124	29	0.15	87	11	0.070
168	46	0.25	39	28	0.15	58	10	0.070
156	45	0.25	111	27	0.15	165	9	0.060
83	44	0.24	105	26	0.14	42	8	0.025
120	43	0.24	71	25	0.14	03	7	0.025
164	42	0.23	115	24	0.13	02	6	0.025
143	41	0.23	88	23	0.13	52	5	0.025
136	40	0.23	134	22	0.12	98	4	0.025
79	39	0.23	01	21	0.12	43	3	0.025
148	38	0.21	76	20	0.12	131	2	0.025
130	37	0.20	86	19	0.11	20	1	0.025
158	36	0.20	139	18	0.11			
142	35	0.20	40	17	0.10			
67	34	0.19	36	16	0.10			
10	33	0.19	84	15	0.10			

EXHIBIT 1

SAMPLE SITE JUSTIFICATION/COLLECTION METHOD CERTIFICATION

## LEAD AND COPPER RULE

## SAMPLING REPORT

System's Name: City of Fresno Water Division  
☐ NTNCWS

Type: ☒ CWS

Address: 1910 E. University Ave  
100,000

Size: ☒ >

Fresno, CA 93703-2988

☐

50,001 to 100,000

☐

10,001 to 50,000

☐

3,301 to 10,000

Telephone Number: (559)621-5300  
to 3,300

☐ 501

☐ 101

to 500

System ID Number: 10-007  
100

☐ ≤

Contact Person: Lon Martin

Sample

Date(s): 6/18/03 - 8/5/03

## SAMPLE SITE

## IDENTIFICATION

## Number of sample sites in each category:

- Single-family structures with copper pipes with lead solder installed after 1982; or lead pipes; or lead service lines.

131

- Multi-family structures with copper pipes with lead solder installed after 1982; or lead pipes; or lead service lines.

0

- Buildings containing copper pipes with lead solder installed after 1982; or lead pipes; or lead service lines.

0

- Single family structures with copper pipes with lead solder installed before 1983.

0

Total:

131

Number of lead service lines present in the distribution system: 0

Number of samples collected from sites served by lead service lines: 0

The following sources have been explored to determine the number of structures which have interior lead pipe or copper pipe with lead solder:

Plumbing and/or building codes.

Interviews with building

inspectors

Plumbing and/or building permits.

about

Contacts with the building department,  
was used from

municipal clerk's office, or state regulatory agencies.

Water quality data.

Survey of service area plumbers

when and where lead solder

1982 to present.

Survey of residents.

Interviews with local contractors

& developers.

**The following sources have been explored to determine the number of lead service lines in the distribution system:**

Distribution system maps and record drawings.

Capitol improvement plans and/or master plans for distribution system development.

Standard operating procedures and/or operation & maintenance manuals for the types of  
materials used for service connections.

Utility records including meter installations, customer complaint investigations .

Water quality data.

Interviews with senior personnel.

Conduct service line sampling where lead service lines are suspected to exist.

Review of permit files

Survey of residents.

Interviews with local pipe supplies, contractors and/or developers.



## RESULTS OF SAMPLING

### Results of Lead And Copper Tap Water Samples: *(Attach copy of all results to this form.)*

Number of tap samples required: 50 90th Percentile Lead level: \_\_\_\_\_  
0.015 mg/L

Number of tap samples collected & submitted: 50 90th Percentile Copper level: \_\_\_\_\_  
0.25 mg/L

### Results of Water Quality Parameter (WQP) Samples: *(Complete only if system is required to collect WQP samples.)*

Number of WQP samples required to be collected: 15

Number of WQP samples collected & submitted: 15

Number of WQP entry point samples required to be collected: 20

Number of WQP entry point samples collected and submitted 20

## CERTIFICATION OF

## COLLECTION METHODS

### I certify that:

- Each first draw tap sample for lead and copper is one liter in volume and has stood motionless in plumbing system of each sampling site for at least six hours.
- Each first draw sample collected from a single-family residence has been collected from the cold water kitchen tap or bathroom sink tap.
- Each first draw sample collected from a non-residential building has been collected at an interior tap from which water is typically drawn for consumption.
- Each first draw sample collected during an annual or triennial monitoring period has been collected in months of June, July, August, or September.
- Each resident who volunteered to collect tap water samples from his or her home has been properly instructed in the proper methods for collecting lead and copper samples. I do not challenge the accuracy of those sampling results.
- Enclosed is a copy of the material distributed to residents explaining the proper collection methods, and a list of the residents who performed sampling.

## CHANGE OF SAMPLING

### SITES

Original site address: See Attached

New site address: See Attached

Distance between sites (approximately): Less than 1/2 mile

Targeting Criteria:	New Site:	Tier 1	Old Site:	Tier 1
Area served	Area served	Tier 2	Area served	Tier 2
		Tier 3		Tier 3

Reason for sample site change:

Proximity to area served

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SIGNATURE: Lon M. Martin

DATE: 2/2/04

Lon Martin

Water System Manager

Print Name

Title

TABLE 3

## TAP WATER SAMPLE ANALYSIS (LEAD)–SUMMER 2003

#	Rank	mg/l	#	Rank	mg/l	#	Rank	mg/l
120	50	0.005	10	32	0	115	14	0
140	49	0.0025	01	31	0	88	13	0
124	48	0.0025	03	30	0	158	12	0
111	47	0.0025	02	29	0	131	11	0
156	46	0.0025	165	28	0	21	10	0
130	45	0.0025	87	27	0	107	9	0
61	44	0	52	26	0	157	8	0
168	43	0	40	25	0	139	7	0
134	42	0	86	24	0	142	6	0
159	41	0	98	23	0	143	5	0
148	40	0	57	22	0	136	4	0
147	39	0	36	21	0	79	3	0
129	38	0	105	20	0	20	2	0
42	37	0	58	19	0	71	1	0
164	36	0	39	18	0			
83	35	0	84	17	0			
51	34	0	76	16	0			
67	33	0	43	15	0			

TABLE 3

## TAP WATER SAMPLE ANALYSIS (COPPER)–SUMMER 2003

#	Rank	mg/l	#	Rank	mg/l	#	Rank	mg/l
140	50	0.33	21	32	0.19	61	14	0.090
51	49	0.31	147	31	0.18	157	13	0.090
159	48	0.27	107	30	0.17	57	12	0.080
129	47	0.26	124	29	0.15	87	11	0.070
168	46	0.25	39	28	0.15	58	10	0.070
156	45	0.25	111	27	0.15	165	9	0.060
83	44	0.24	105	26	0.14	42	8	0.025
120	43	0.24	71	25	0.14	03	7	0.025
164	42	0.23	115	24	0.13	02	6	0.025
143	41	0.23	88	23	0.13	52	5	0.025
136	40	0.23	134	22	0.12	98	4	0.025
79	39	0.23	01	21	0.12	43	3	0.025
148	38	0.21	76	20	0.12	131	2	0.025
130	37	0.20	86	19	0.11	20	1	0.025
158	36	0.20	139	18	0.11			
142	35	0.20	40	17	0.10			
67	34	0.19	36	16	0.10			
10	33	0.19	84	15	0.10			

## EXHIBIT 2

### RESIDENT TAP SAMPLE COLLECTION DIRECTIONS & PROCEDURES

### **DIRECTIONS--RESIDENT TAP SAMPLE COLLECTION PROCEDURES**

These samples are being collected to determine the contribution of household fixtures and pipes and/or solder to the lead and copper levels in tap water. This sampling effort is required by the State of California, Department of Health Services, and is being accomplished through the cooperation of homeowners and residents. The collection procedure is described in detail below:

1. **On the day prior to collecting the sample thoroughly clean and remove all debris which may have accumulated inside the aerator of your kitchen tap water faucet. Run the tap for 1-2 minutes after cleaning so that no loose debris will impact sampling process.**
2. **Do not use any water for 6-8 hours on your premises prior to sampling.** The Water Division recommends that either early mornings (after awakening) or early evenings (after returning from work) are the best sampling times to ensure that the proper water conditions exist.
3. **The primary kitchen cold water faucet is to be used for sampling. The sample must be 100% from the cold water side of the tap; it can not be a mixture of water "dialed" from both hot and cold service lines.** Place the open sample bottle below the faucet and **gently** open the cold water tap. **Slowly fill the sample bottle** to the base of the neck and turn off the water. **It should take 45-60 seconds to fill the sample bottle.**
4. Tightly cap the sample bottle and place in the plastic bag provided. Complete the information requested below and place this paper in the plastic bag with the sample bottle.
5. Place the sample outside your home for pick-up Monday, June 23rd by 8:00 AM.
6. Results from this monitoring effort will be provided to participating customers when reports are generated for the State of California, Department of Health Services.

**Please call Bill Dunn at 621-5365 if you have any questions regarding these instructions. Saturday & Sunday 6-21 & 6-22-03 telephone calls will be monitored hourly 7AM-7PM!!**  
**TO BE COMPLETED BY RESIDENT AND RETURNED WITH SAMPLE:**

Water was last used: TIME \_\_\_\_\_ DATE \_\_\_\_\_

Sample was collected: TIME \_\_\_\_\_ DATE \_\_\_\_\_

I have read the above directions and have taken a tap sample in accordance with these directions.

PRINTED NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_  
ADDRESS \_\_\_\_\_ PHONE \_\_\_\_\_

TO BE COMPLETED BY WATER DIVISION EMPLOYEE:

Sample picked up by \_\_\_\_\_ Time \_\_\_\_\_ Date \_\_\_\_\_

h:\prd\sproj\wq\lead\03sample.wpd

EXHIBIT 3

TAP WATER SAMPLE ANALYSIS MASTER LISTING

EXHIBIT 4

SOURCE SAMPLE LISTING FOR ENTIRE CITY



































EXHIBIT 5

DISTRIBUTION SAMPLE LISTING FOR ENTIRE CITY



## APPENDIX A

### INSTRUCTIONS AND RESIDENT CHAIN OF CUSTODY

### DIRECTIONS--RESIDENT TAP SAMPLE COLLECTION PROCEDURES

These samples are being collected to determine the contribution of household fixtures and pipes and/or solder to the lead and copper levels in tap water. This sampling effort is required by the State of California, Department of Health Services, and is being accomplished through the cooperation of homeowners and residents. The collection procedure is described in detail below:

1. On the day prior to collecting the sample thoroughly clean and remove all debris which may have accumulated inside the aerator of your kitchen tap water faucet. Run the tap for 1-2 minutes after cleaning so that no loose debris will impact sampling process.
2. Do not use any water for 6-8 hours on your premises prior to sampling. The Water Division recommends that either early mornings (after awakening) or early evenings (after returning from work) are the best sampling times to ensure that the proper water conditions exist.
3. The primary kitchen cold water faucet is to be used for sampling. The sample must be 100% from the cold water side of the tap; it can not be a mixture of water "dialed" from both hot and cold service lines. Place the open sample bottle below the faucet and gently open the cold water tap. Slowly fill the sample bottle to the base of the neck and turn off the water. It should take 45-60 seconds to fill the sample bottle.
4. Tightly cap the sample bottle and place in the plastic bag provided. Complete the information requested below and place this paper in the plastic bag with the sample bottle.
5. Place the sample outside your home for pick-up Monday, June 23rd by 8:00 AM.
6. Results from this monitoring effort will be provided to participating customers when reports are generated for the State of California, Department of Health Services.

Please call Bill Dunn at 621-5365 if you have any questions regarding these instructions. Saturday & Sunday 6-21 & 6-22-03 telephone calls will be monitored hourly 7AM-7PM!!  
TO BE COMPLETED BY RESIDENT AND RETURNED WITH SAMPLE:

Water was last used: TIME 12:00 AM DATE 6/24  
Sample was collected: TIME 4:00 AM DATE 6/24

I have read the above directions and have taken a tap sample in accordance with these directions.

PRINT  
ADDR

TO BE COMPLETED BY WATER DIVISION EMPLOYEE:

Sample picked up by S. Woods Time 1100 Date 06-24-03  
h:\prd\sproj\wq\lead\03sample.wpd

#61

(b) (6)

## APPENDIX B

### DISTRIBUTION SYSTEM RESULTS

APPENDIX C

SOURCE WATER RESULTS

GENERAL MINERAL & PHYSICAL & INORGANIC ANALYSIS (3/03)

Date of Report: 03/07/07

Laboratory

Name: BSK ANALYTICAL LABORATORIES

Authorized

Signature: Rachel White

Sample ID No. 2003061597-336298

Name of Sampler: Darrin Childers

Employed By: Fresno City Water Division

Date/Time Sample

Date/Time Sample

Date Analyses

Collected: 03/06/24/1058

Received: 03/06/24/1310

Completed: 03/07/01

System Name: FRESNO, CITY OF

System #: 1010007

Name or Number of Sample Source: WELL 006B - RAW

User ID: AGE

Station Number: 1010007-128

Date/Time of Sample: 03/06/24/1058

Laboratory Code: 5810

Date Analysis Completed: 03/07/01

Submitted by: \_\_\_\_\_

Phone #: \_\_\_\_\_

PAGE 1 OF 1

INORGANIC CHEMICALS

MCL	REPORTING UNITS	CHEMICAL	ENTRY#	ANALYSIS RESULTS	DLR
1000	µg/L +	Copper (Cu)	01042	ND	50.
	µg/L	Lead (Pb)	01051	ND	5.

+ Indicates Secondary Drinking Water Standards

\* 250-500-600 \*\* 900-1600-2200 \*\*\* 500-1000-1500

+ Indicates Secondary Drinking Water Standards

**BSK** ANALYTICAL  
LABORATORIES

GENERAL MINERAL & PHYSICAL & INORGANIC ANALYSIS (3/03)

Date of Report: 03/07/07

Sample ID No.2003061601-336318

Laboratory

Authorized

Name: BSK ANALYTICAL LABORATORIES

Signature: Rachel Wiley

Name of Sampler: Steve Woods

Employed By: Fresno City Water Division

Date/Time Sample

Date/Time Sample

Date Analyses

Collected: 03/06/24/0900

Received:03/06/24/1353

Completed: 03/07/01

System Name: FRESNO, CITY OF

System #: 1010007

Name or Number of Sample Source: WELL 079 - RAW

User ID: AGE

Station Number: 1010007-213

Date/Time of Sample: 03/06/24/0900

Laboratory Code: 5810

Date Analysis Completed: 03/07/01

Submitted by: \_\_\_\_\_

Phone #: \_\_\_\_\_

PAGE 1 OF 1

INORGANIC CHEMICALS

MCL	REPORTING UNITS	CHEMICAL	ENTRY#	ANALYSIS RESULTS	DLR
1000	µg/L +	Copper (Cu)	01042	ND	50.
	µg/L	Lead (Pb)	01051	ND	5.

+ Indicates Secondary Drinking Water Standards

\* 250-500-600 \*\* 900-1600-2200 \*\*\* 500-1000-1500

+ Indicates Secondary Drinking Water Standards

**BSK** ANALYTICAL  
LABORATORIES

GENERAL MINERAL & PHYSICAL & INORGANIC ANALYSIS (3/03)

Date of Report: 03/07/07

Sample ID No.2003061597-336290

Laboratory

Authorized

Name: BSK ANALYTICAL LABORATORIES

Signature: Rachel Wilcox

Name of Sampler: Darrin Childers

Employed By: Fresno City Water Division

Date/Time Sample

Date/Time Sample

Date Analyses

Collected: 03/06/24/0900

Received:03/06/24/1310

Completed: 03/07/01

System Name: FRESNO, CITY OF

System #: 1010007

Name or Number of Sample Source: WELL 083A - RAW

User ID: AGE

Station Number: 1010007-217

Date/Time of Sample: 03/06/24/0900

Laboratory Code: 5810

Date Analysis Completed: 03/07/01

Submitted by: \_\_\_\_\_

Phone #: \_\_\_\_\_

PAGE 1 OF 1

INORGANIC CHEMICALS

MCL	REPORTING UNITS	CHEMICAL	ENTRY#	ANALYSIS RESULTS	DLR
1000	µg/L +	Copper (Cu)	01042	ND	50.
	µg/L	Lead (Pb)	01051	ND	5.

+ Indicates Secondary Drinking Water Standards

\* 250-500-600 \*\* 900-1600-2200 \*\*\* 500-1000-1500

+ Indicates Secondary Drinking Water Standards

**BSK** ANALYTICAL  
LABORATORIES

GENERAL MINERAL & PHYSICAL & INORGANIC ANALYSIS (3/03)

Date of Report: 03/07/07  
Laboratory Name: BSK ANALYTICAL LABORATORIES  
Name of Sampler: Darrin Childers  
Date/Time Sample Collected: 03/06/24/1012  
Authorized Signature: Rachel Wiley  
Employed By: Fresno City Water Division  
Sample ID No. 2003061597-336293  
Date/Time Sample Received: 03/06/24/1310  
Date Analyses Completed: 03/07/01

System Name: FRESNO, CITY OF  
Name or Number of Sample Source: WELL 086 - RAW  
System #: 1010007

User ID: AGE  
Date/Time of Sample: 03/06/24/1012  
Station Number: 1010007-220  
Laboratory Code: 5810  
Date Analysis Completed: 03/07/01  
Submitted by: \_\_\_\_\_ Phone #: \_\_\_\_\_

PAGE 1 OF 1 INORGANIC CHEMICALS

MCL	REPORTING UNITS	CHEMICAL	ENTRY#	ANALYSIS RESULTS	DLR
1000	µg/L +	Copper (Cu)	01042	ND	50.
	µg/L	Lead (Pb)	01051	ND	5.

+ Indicates Secondary Drinking Water Standards

\* 250-500-600 \*\* 900-1600-2200 \*\*\* 500-1000-1500

+ Indicates Secondary Drinking Water Standards  
**BSK ANALYTICAL  
LABORATORIES**



GENERAL MINERAL & PHYSICAL & INORGANIC ANALYSIS (3/03)

Date of Report: 03/07/07

Laboratory

Name: BSK ANALYTICAL LABORATORIES

Name of Sampler: Darrin Childers

Date/Time Sample

Collected: 03/06/24/1035

Authorized

Signature: Facel Wilcox

Employed By: Fresno City Water Division

Date/Time Sample

Received: 03/06/24/1310

Sample ID No. 2003061597-336295

Date Analyses

Completed: 03/07/01

System Name: FRESNO, CITY OF

Name or Number of Sample Source: WELL 089A INF

System #: 1010007

User ID: AGE

Date/Time of Sample: 03/06/24/1035

Station Number: 1010007-223

Laboratory Code: 5810

Date Analysis Completed: 03/07/01

Submitted by: \_\_\_\_\_

Phone #: \_\_\_\_\_

PAGE 1 OF 1

INORGANIC CHEMICALS

MCL	REPORTING UNITS	CHEMICAL	ENTRY#	ANALYSIS RESULTS	DLR
1000	µg/L +	Copper (Cu)	01042	ND	50.
	µg/L	Lead (Pb)	01051	ND	5.

+ Indicates Secondary Drinking Water Standards

# BSK ANALYTICAL LABORATORIES

Bob Little  
Fresno City Water Division  
1910 E. University Ave.  
Fresno, CA 93703

## Certificate of Analysis ELAP Certificate #1180

Report Issue Date: 06/27/2003

BSK Submission #: 2003061560

BSK Sample ID #: 336055

Project ID: 1010007

Project Desc:

Submission Comments:

Sample Type: Liquid  
Sample Description: Well #91  
Sample Comments:

Date Sampled: 06/23/2003

Time Sampled: 1410

Date Received: 06/23/2003

### Inorganics

Analyte	Method	Result	Units	PQL	Dilution	DLR	Prep Date	Analysis Date
Copper (Cu)	EPA 200.8	ND	mg/L	0.01	1	0.01	06/23/03	06/26/03
Lead (Pb)	EPA 200.8	ND	mg/L	0.001	1	0.001	06/23/03	06/26/03
Turbidity	SM 2130-B	ND	NTU	0.1	1	0.1	06/26/03	06/26/03

mg/L: Milligrams/Liter (ppm)  
mg/Kg: Milligrams/Kilogram (ppm)  
µg/L: Micrograms/Liter (ppb)  
µg/Kg: Micrograms/Kilogram (ppb)  
%Rec: Percent Recovered (surrogates)

PQL: Practical Quantitation Limit  
DLR: Detection Limit for Reporting  
: PQL x Dilution  
ND: None Detected at DLR

H: Analyzed outside of hold time  
P: Preliminary result  
S: Suspect result. See Cover Letter for comments.  
E: Analysis performed by External laboratory.  
See External Laboratory Report attachments.

Report Authentication Code:



Page 2 of 4

GENERAL MINERAL & PHYSICAL & INORGANIC ANALYSIS (3/03)

Date of Report: 03/07/07

Laboratory

Name: BSK ANALYTICAL LABORATORIES

Name of Sampler: Steve Woods

Date/Time Sample

Collected: 03/06/24/0920

Authorized

Signature:

Employed By: Fresno City Water Division

Date/Time Sample

Received: 03/06/24/1353

Sample ID No. 2003061601-336319

Date Analyses

Completed: 03/07/01

System Name: FRESNO, CITY OF

Name or Number of Sample Source: WELL 097 - RAW

System #: 1010007

User ID: AGE

Date/Time of Sample: 03/06/24/0920

Station Number: 1010007-231

Laboratory Code: 5810

Date Analysis Completed: 03/07/01

Submitted by:

Phone #:

PAGE 1 OF 1

INORGANIC CHEMICALS

MCL	REPORTING UNITS	CHEMICAL	ENTRY#	ANALYSIS RESULTS	DLR
1000	$\mu\text{g/L}$ +	Copper (Cu)	01042	ND	50.
	$\mu\text{g/L}$	Lead (Pb)	01051	ND	5.

+ Indicates Secondary Drinking Water Standards

\* 250-500-600 \*\* 900-1600-2200 \*\*\* 500-1000-1500

+ Indicates Secondary Drinking Water Standards

**BSK** ANALYTICAL  
LABORATORIES

# BSK ANALYTICAL LABORATORIES

Bob Little  
Fresno City Water Division  
1910 E. University Ave.  
Fresno, CA 93703

## Certificate of Analysis ELAP Certificate #1180

Report Issue Date: 06/27/2003

BSK Submission #: 2003061560

BSK Sample ID #: 336056

Project ID: 1010007

Project Desc:

Submission Comments:

Sample Type: Liquid  
Sample Description: Well #99  
Sample Comments:

Date Sampled: 06/23/2003

Time Sampled: 1420

Date Received: 06/23/2003

### Inorganics

Analyte	Method	Result	Units	PQL	Dilution	DLR	Prep Date	Analysis Date
Copper (Cu)	EPA 200.8	ND	mg/L	0.01	1	0.01	06/23/03	06/26/03
Lead (Pb)	EPA 200.8	ND	mg/L	0.001	1	0.001	06/23/03	06/26/03
Turbidity	SM 2130-B	ND	NTU	0.1	1	0.1	06/26/03	06/26/03

mg/L: Milligrams/Liter (ppm)  
mg/Kg: Milligrams/Kilogram (ppm)  
µg/L: Micrograms/Liter (ppb)  
µg/Kg: Micrograms/Kilogram (ppb)  
%Rec: Percent Recovered (surrogates)

PQL: Practical Quantitation Limit  
DLR: Detection Limit for Reporting  
: PQL x Dilution  
ND: None Detected at DLR

H: Analyzed outside of hold time  
P: Preliminary result  
S: Suspect result. See Cover Letter for comments.  
E: Analysis performed by External laboratory.  
See External Laboratory Report attachments.

Report Authentication Code:



Page 3 of 4

GENERAL MINERAL & PHYSICAL & INORGANIC ANALYSIS (3/03)

Date of Report: 03/07/07

Sample ID No.2003061597-336296

Laboratory

Authorized

Name: BSK ANALYTICAL LABORATORIES

Signature: Rachel Whaley

Name of Sampler: Darrin Childers

Employed By: Fresno City Water Division

Date/Time Sample

Date/Time Sample

Date Analyses

Collected: 03/06/24/1042

Received:03/06/24/1310

Completed: 03|07|01

System Name: FRESNO, CITY OF

System #: 1010007

Name or Number of Sample Source: WELL 131 - RAW

User ID: AGE

Station Number: 1010007-261

Date/Time of Sample: 03|06|24|1042|

Laboratory Code: 5810

Date Analysis Completed: 03|07|01

Submitted by: \_\_\_\_\_

Phone #: \_\_\_\_\_

PAGE 1 OF 1

INORGANIC CHEMICALS

MCL	REPORTING UNITS	CHEMICAL	ENTRY#	ANALYSIS RESULTS	DLR
1000	µg/L +	Copper (Cu)	01042	ND	50.
	µg/L	Lead (Pb)	01051	ND	5.

+ Indicates Secondary Drinking Water Standards

\* 250-500-600 \*\* 900-1600-2200 \*\*\* 500-1000-1500

+ Indicates Secondary Drinking Water Standard

**BSK** ANALYTICAL  
LABORATORIES

GENERAL MINERAL & PHYSICAL & INORGANIC ANALYSIS (3/03)

Date of Report: 03/07/07

Sample ID No.2003061597-336291

Laboratory

Authorized

Name: BSK ANALYTICAL LABORATORIES

Signature: Rachel White

Name of Sampler: Darrin Childers

Employed By: Fresno City Water Division

Date/Time Sample

Date/Time Sample

Date Analyses

Collected: 03/06/24/0943

Received:03/06/24/1310

Completed: 03/07/01

System Name: FRESNO, CITY OF

System #: 1010007

Name or Number of Sample Source: WELL 133 - RAW

User ID: AGE

Station Number: 1010007-263

Date/Time of Sample: 03/06/24/0943

Laboratory Code: 5810

Date Analysis Completed: 03/07/01

Submitted by: \_\_\_\_\_

Phone #: \_\_\_\_\_

PAGE 1 OF 1

INORGANIC CHEMICALS

MCL	REPORTING UNITS	CHEMICAL	ENTRY#	ANALYSIS RESULTS	DLR
1000	µg/L +	Copper (Cu)	01042	ND	50.
	µg/L	Lead (Pb)	01051	ND	5.

+ Indicates Secondary Drinking Water Standards

GENERAL MINERAL & PHYSICAL & INORGANIC ANALYSIS (3/03)

Date of Report: 03/07/07

Laboratory

Name: BSK ANALYTICAL LABORATORIES

Authorized

Signature:

Sample ID No.2003061601-336315

*Rachel Wilkins*

Name of Sampler: Steve Woods

Employed By: Fresno City Water Division

Date/Time Sample

Collected: 03/06/24/0825

Date/Time Sample

Received:03/06/24/1353

Date Analyses

Completed: 03/07/01

System Name: FRESNO, CITY OF

System #: 1010007

Name or Number of Sample Source: WELL 136 - RAW

User ID: AGE

Station Number: 1010007-270

Date/Time of Sample: 03/06/24/0825

Laboratory Code: 5810

Date Analysis Completed: 03/07/01

Submitted by:

Phone #:

PAGE 1 OF 1

INORGANIC CHEMICALS

MCL	REPORTING UNITS	CHEMICAL	ENTRY#	ANALYSIS RESULTS	DLR
1000	$\mu\text{g/L}$ +	Copper (Cu)	01042	ND	50.
	$\mu\text{g/L}$	Lead (Pb)	01051	ND	5.

+ Indicates Secondary Drinking Water Standards

\* 250-500-600 \*\* 900-1600-2200 \*\*\* 500-1000-1500

+ Indicates Secondary Drinking Water Standards

**BSK** ANALYTICAL  
LABORATORIES

GENERAL MINERAL & PHYSICAL & INORGANIC ANALYSIS (3/03)

Date of Report: 03/07/07  
Laboratory  
Name: BSK ANALYTICAL LABORATORIES

Authorized  
Signature: \_\_\_\_\_

Sample ID No. 2003061601-336317

Name of Sampler: Steve Woods

Employed By: Fresno City Water Division

Date/Time Sample  
Collected: 03/06/24/0850

Date/Time Sample  
Received: 03/06/24/1353

Date Analyses  
Completed: 03/07/01

System Name: FRESNO, CITY OF  
Name or Number of Sample Source: WELL 141 - RAW

System #: 1010007

User ID: AGE  
Date/Time of Sample: 03/06/24/0850

Station Number: 1010007-327  
Laboratory Code: 5810  
Date Analysis Completed: 03/07/01

Submitted by: \_\_\_\_\_

Phone #: \_\_\_\_\_

PAGE 1 OF 1

INORGANIC CHEMICALS

MCL	REPORTING UNITS	CHEMICAL	ENTRY#	ANALYSIS RESULTS	DLR
1000	µg/L +	Copper (Cu)	01042	ND	50.
	µg/L	Lead (Pb)	01051	ND	5.

+ Indicates Secondary Drinking Water Standards

\* 250-500-600 \*\* 900-1600-2200 \*\*\* 500-1000-1500

+ Indicates Secondary Drinking Water Standard

**BSK** ANALYTICAL  
LABORATORIES



BSK LABORATORIES  
1414 Stanislaus St.  
Fresno, CA 93706

EDT

GENERAL MINERAL & PHYSICAL & INORGANIC ANALYSIS (3/03)

Date of Report: 03/07/07

Laboratory

Name: BSK ANALYTICAL LABORATORIES

Name of Sampler: Darrin Childers

Date/Time Sample

Collected: 03/06/24/0955

Authorized

Signature:

Employed By: Fresno City Water Division

Date/Time Sample

Received: 03/06/24/1310

Sample ID No. 2003061597-336292

Date Analyses

Completed: 03/07/01

System Name: FRESNO, CITY OF

Name or Number of Sample Source: WELL 143 - RAW

System #: 1010007

User ID: AGE

Date/Time of Sample: 03/06/24/0955

Station Number: 1010007-268

Laboratory Code: 5810

Date Analysis Completed: 03/07/01

Submitted by:

Phone #:

PAGE 1 OF 1

INORGANIC CHEMICALS

MCL	REPORTING UNITS	CHEMICAL	ENTRY#	ANALYSIS RESULTS	DLR
1000	$\mu\text{g/L}$ +	Copper (Cu)	01042	ND	50.
	$\mu\text{g/L}$	Lead (Pb)	01051	ND	5.

+ Indicates Secondary Drinking Water Standards

\* 250-500-600 \*\* 900-1600-2200 \*\*\* 500-1000-1500

+ Indicates Secondary Drinking Water Standards

**BSK** ANALYTICAL  
LABORATORIES

03061597.res

GENERAL MINERAL & PHYSICAL & INORGANIC ANALYSIS (3/03)

Date of Report: 03/07/07

Sample ID No.2003061597-336294

Laboratory

Authorized

Name: BSK ANALYTICAL LABORATORIES

Signature: Rachel White

Name of Sampler: Darrin Childers

Employed By: Fresno City Water Division

Date/Time Sample

Date/Time Sample

Date Analyses

Collected: 03/06/24/1025

Received:03/06/24/1310

Completed: 03/07/01

System Name: FRESNO, CITY OF

System #: 1010007

Name or Number of Sample Source: WELL 150 - RAW

User ID: AGE

Station Number: 1010007-279

Date/Time of Sample: 03/06/24/1025

Laboratory Code: 5810

Date Analysis Completed: 03/07/01

Submitted by: \_\_\_\_\_

Phone #: \_\_\_\_\_

PAGE 1 OF 1

INORGANIC CHEMICALS

MCL	REPORTING UNITS	CHEMICAL	ENTRY#	ANALYSIS RESULTS	DLR
1000	µg/L +	Copper (Cu)	01042	ND	50.
	µg/L	Lead (Pb)	01051	ND	5.

+ Indicates Secondary Drinking Water Standards

\* 250-500-600 \*\* 900-1600-2200 \*\*\* 500-1000-1500

+ Indicates Secondary Drinking Water Standard

**BSK** ANALYTICAL  
LABORATORIES

GENERAL MINERAL & PHYSICAL & INORGANIC ANALYSIS (3/03)

Date of Report: 03/07/07

Laboratory

Name: BSK ANALYTICAL LABORATORIES

Name of Sampler: Darrin Childers

Date/Time Sample

Collected: 03/06/24/1233

Authorized

Signature:

Employed By: Fresno City Water Division

Date/Time Sample

Received: 03/06/24/1310

Sample ID No. 2003061597-336300

Date Analyses

Completed: 03/07/01

System Name: FRESNO, CITY OF

Name or Number of Sample Source: WELL 163 - RAW

System #: 1010007

User ID: AGE

Date/Time of Sample: 03/06/24/1233

Station Number: 1010007-315

Laboratory Code: 5810

Date Analysis Completed: 03/07/01

Submitted by:

Phone #:

PAGE 1 OF 1

INORGANIC CHEMICALS

MCL	REPORTING UNITS	CHEMICAL	ENTRY#	ANALYSIS RESULTS	DLR
1000	$\mu\text{g/L}$ +	Copper (Cu)	01042	ND	50.
	$\mu\text{g/L}$	Lead (Pb)	01051	ND	5.

+ Indicates Secondary Drinking Water Standards

\* 250-500-600 \*\* 900-1600-2200 \*\*\* 500-1000-1500

+ Indicates Secondary Drinking Water Standard

**BSK** ANALYTICAL  
LABORATORIES

# BSK ANALYTICAL LABORATORIES

Bob Little  
Fresno City Water Division  
1910 E. University Ave.  
Fresno, CA 93703

## Certificate of Analysis ELAP Certificate #1180

Report Issue Date: 06/27/2003

BSK Submission #: 2003061560

BSK Sample ID #: 336057

Project ID: 1010007

Project Desc:

Submission Comments:

Sample Type: Liquid  
Sample Description: Well #169  
Sample Comments:

Date Sampled: 06/23/2003

Time Sampled: 1440

Date Received: 06/23/2003

### Inorganics

Analyte	Method	Result	Units	PQL	Dilution	DLR	Prep Date	Analysis Date
Copper (Cu)	EPA 200.8	ND	mg/L	0.01	1	0.01	06/23/03	06/26/03
Lead (Pb)	EPA 200.8	ND	mg/L	0.001	1	0.001	06/23/03	06/26/03
Turbidity	SM 2130-B	ND	NTU	0.1	1	0.1	06/26/03	06/26/03

mg/L: Milligrams/Liter (ppm)  
mg/Kg: Milligrams/Kilogram (ppm)  
µg/L: Micrograms/Liter (ppb)  
µg/Kg: Micrograms/Kilogram (ppb)  
%Rec: Percent Recovered (surrogates)

PQL: Practical Quantitation Limit  
DLR: Detection Limit for Reporting  
: PQL x Dilution  
ND: None Detected at DLR

H: Analyzed outside of hold time  
P: Preliminary result  
S: Suspect result. See Cover Letter for comments.  
E: Analysis performed by External laboratory.  
See External Laboratory Report attachments.

Report Authentication Code:



Page 4 of 4

# BSK ANALYTICAL LABORATORIES

Bob Little  
Fresno City Water Division  
1910 E. University Ave.  
Fresno, CA 93703

## Certificate of Analysis ELAP Certificate #1180

Report Issue Date: 06/27/2003

BSK Submission #: 2003061560

BSK Sample ID #: 336054

Project ID: 1010007

Project Desc:

Submission Comments:

Sample Type: Liquid

Date Sampled: 06/23/2003

Sample Description: Well #171-1

Time Sampled: 1400

Sample Comments:

Date Received: 06/23/2003

### Inorganics

Analyte	Method	Result	Units	PQL	Dilution	DLR	Prep Date	Analysis Date
Copper (Cu)	EPA 200.8	ND	mg/L	0.01	1	0.01	06/23/03	06/26/03
Lead (Pb)	EPA 200.8	ND	mg/L	0.001	1	0.001	06/23/03	06/26/03
Turbidity	SM 2130-B	ND	NTU	0.1	1	0.1	06/26/03	06/26/03

mg/L: Milligrams/Liter (ppm)  
mg/Kg: Milligrams/Kilogram (ppm)  
µg/L: Micrograms/Liter (ppb)  
µg/Kg: Micrograms/Kilogram (ppb)  
%Rec: Percent Recovered (surrogates)

PQL: Practical Quantitation Limit  
DLR: Detection Limit for Reporting  
: PQL x Dilution  
ND: None Detected at DLR

H: Analyzed outside of hold time  
P: Preliminary result  
S: Suspect result. See Cover Letter for comments.  
E: Analysis performed by External laboratory.  
See External Laboratory Report attachments.

Report Authentication Code:



Page 1 of 4

GENERAL MINERAL & PHYSICAL & INORGANIC ANALYSIS (3/03)

Date of Report: 03/07/07

Laboratory

Name: BSK ANALYTICAL LABORATORIES

Authorized

Signature:

Sample ID No. 2003061597-336299

Name of Sampler: Darrin Childers

Employed By: Fresno City Water Division

Date/Time Sample

Date/Time Sample

Date Analyses

Collected: 03/06/24/1122

Received: 03/06/24/1310

Completed: 03/07/01

System Name: FRESNO, CITY OF

System #: 1010007

Name or Number of Sample Source: WELL 178

User ID: AGE

Station Number: 1010007-296

Date/Time of Sample: 03/06/24/1122

Laboratory Code: 5810

Date Analysis Completed: 03/07/01

Submitted by: \_\_\_\_\_

Phone #: \_\_\_\_\_

PAGE 1 OF 1

INORGANIC CHEMICALS

MCL	REPORTING UNITS	CHEMICAL	ENTRY#	ANALYSIS RESULTS	DLR
1000	$\mu\text{g/L}$ +	Copper (Cu)	01042	ND	50.
	$\mu\text{g/L}$	Lead (Pb)	01051	ND	5.

+ Indicates Secondary Drinking Water Standards

GENERAL MINERAL & PHYSICAL & INORGANIC ANALYSIS (3/03)

Date of Report: 03/07/07

Laboratory

Name: BSK ANALYTICAL LABORATORIES

Name of Sampler: Darrin Childers

Date/Time Sample

Collected: 03/06/24/1051

Authorized

Signature:

Employed By: Fresno City Water Division

Date/Time Sample

Received: 03/06/24/1310

Sample ID No. 2003061597-336297

Date Analyses

Completed: 03/07/01

System Name: FRESNO, CITY OF

Name or Number of Sample Source: WELL 181 - RAW

System #: 1010007

User ID: AGE

Date/Time of Sample: 03/06/24/1051

Station Number: 1010007-345

Laboratory Code: 5810

Date Analysis Completed: 03/07/01

Submitted by:

Phone #:

PAGE 1 OF 1

INORGANIC CHEMICALS

MCL	REPORTING UNITS	CHEMICAL	ENTRY#	ANALYSIS RESULTS	DLR
1000	$\mu\text{g/L}$ +	Copper (Cu)	01042	ND	50.
	$\mu\text{g/L}$	Lead (Pb)	01051	ND	5.

+ Indicates Secondary Drinking Water Standards

\* 250-500-600 \*\* 900-1600-2200 \*\*\* 500-1000-1500

+ Indicates Secondary Drinking Water Standards

**BSK** ANALYTICAL  
LABORATORIES

## APPENDIX D

### RESIDENT SAMPLE SITE RESULTS



APPENDIX E

CHAIN OF CUSTODY

# BSK ANALYTICAL LABORATORIES

1414 Stanislaus, Fresno CA 93706  
(559) 497-2888, (800) 877-8310, FAX (559) 405-6935

2003061968 06/30/2003  
FCWD TAT: Standard  
630016



Laboratory Chain of Custody

Client		Fresno City Water Div.		Report Attention	Bob Little	Phone	498-4122 (Bonnie)
Address		1910 E. University Ave.		Project, Quote or PO #	quote #590	FAX	(559) 498-2589
City, State, Zip		Fresno, CA 93703		Copy to:		System #	1010007
Lab Use Only		Sampling Info		Sampled by:		Other	
S#	T	HC	Date	Time	Sample Description / Location	Comment or Station Code	
1	1		6/30/03	0830	#136	338218	
STATE FORMS							
EX to Local DHS, Attn: Carl Cartucci							
Rush Priority (1-Day, 2-Day, 5-Day)							
502.2							
504.1							
3-DAY 504							
NITRATE (NO3)							
ARSENIC (As)							
GenMin/Inorg/GenPhys							
505							
515.1							
525.1							
531.1							
547							
548							
549							
Fluoride							
X Pb/Cu Rule							

QC Report Type: Level [ ] 2 [ ] 3 [ ] 4

Formal COC Required: [ ]

Additional Services authorized by:

Relinquished by:	Received by:	City of Fresno, Water Division	City of Fresno, Water Division
<i>[Signature]</i>	<i>[Signature]</i>	BSN	BSN
		6/30/03	6/30/03
		1120	1120

Notice: Payment for services rendered as noted herein are due within 30 days from the invoice date. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service/so billing charges and interest calculated at 1.5% per month, 18% per annum. BSK releases shall be entitled to recover on delinquent accounts, costs of collections, including attorney's fees for collection. The person signing for the Client/Company hereby acknowledges that they are either the Client or authorized agent of the Company.

11:30pm 2003061968-122-bsk Last Modified 13 Mar 2001

1.50078 ROC